

CLAIMS

1. A heat exchanger comprising plates having a pattern of grooves, and inlet and outlet connections, placed so as to form a pack and brazed together so as to form separate channels for two media between alternating pairs of plates, **characterised** by a separation zone ~~(14)~~, having a blocked-off space ~~(15)~~, formed by a barrier of valleys and peaks ~~(3, 8)~~ in contact with each other in alternate pairs of plates at a distance from the connections ~~(1, 6)~~, the brazing at the edges of the plates and the brazing at the connections ~~(1, 6)~~, which blocked-off space ~~(15)~~ cannot be reached by any one of the media except during leakage, in such a way that the medium which is not to reach and flow through the respective connection is blocked at the barrier ~~(3, 8)~~ between one pair of plates, whereas the other medium can flow through the separation zone ~~(14)~~ in adjacent channels in surrounding pairs of plates and on through the respective connection ~~(1, 6)~~; and by a leakage vent ~~(2, 7)~~ from the blocked-off space ~~(15)~~ to the exterior.

2. A heat exchanger according to ~~claims 1 or 2~~, **characterised** by the blocked-off space being formed by a separation groove ~~(3, 8)~~, running at a distance from each connection and separating the connection towards the respective corner.

3. A heat exchanger according to ~~claims 1 or 2~~, **characterised** by the leakage vent ~~(2, 7)~~ consisting of holes, arranged in rotational symmetry, through the plates, such that the holes register when turning every other plate 180°.

4. A heat exchanger according to claim 3, **characterised** by the holes ~~(2, 7)~~ being located at an angle of 45°, centred between the edges of the plates.

5. A heat exchanger according to claim 3, **characterised** by the hole being located close to one edge of the plates.

6. A heat exchanger according to ~~any one of the preceding claims~~, **characterised** by a sensor for detecting leakage being located in one or more blocked-off spaces.

7. A heat exchanger according to ~~any one of claims 1-6~~, **characterised** by a pipe running from one or more closed-off spaces, said pipe being connected to a sensor for detecting leakage.

8. A heat exchanger according to claim 7, **characterised** by several pipes being connected to a common sensor.

9. A heat exchanger according to ~~any one of claims 6-8~~, **characterised** by said sensor(s) being connected to a security system.

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